

Delta Operations for Salmon and Sturgeon (DOSS) Group
Conference call: 03/15/11 at 9:00 a.m.

Objective: Provide advice to the Water Operations Management Team (WOMT) and National Marine Fisheries Service (NMFS) on measures to reduce adverse effects from Delta operations of the Central Valley Project and the State Water Project on salmon and green sturgeon. DOSS will coordinate the work of other technical teams. DOSS notes and advice can be found at: <http://swr.nmfs.noaa.gov/ocap/htm>

DWR: Andy Chu, Mike Ford, Cynthia LeDoux-Bloom, Angela Llaban

NMFS: Bruce Oppenheim, Barb Byrne, Jeff Stuart

DFG: Dan Kratville, Joe Johnson, Robert Vincik

EPA: Bruce Herbold

Reclamation: Josh Israel

FWS, SWRCB: not present

Agenda:

- 1) Fish monitoring data
- 2) Water project operations & OMR flows
- 3) Weather forecast
- 4) Smelt Working Group update

Fish Monitoring: The following table presents the fish monitoring data from 3/7–3/14/11

Location	Chippis Is. Midwater Trawl	Sacramento Kodiak Trawl	Mossdale Kodiak Trawl	Beach Seines	Knights Landing RST	Tisdale Weir RST	Moulton Weir RST	Deer/Mill Creeks RST
Sample Date	3/7, 3/9, 3/11	3/7, 3/9, 3/11	3/7, 3/10, 3/11	3/8, 3/10	3/7–3/12	3/10–3/14	3/7–3/14	N/A
Total Catch	15	31	0	340	279	76	218	
FR	0	26	0	255	256	75	212	
LFR	0	0	0	0	0	0	0	
WR	4	0	0	5	1	0	4	
SR	0	3	0	77	18	1	2	
(Ad-clips)	1	0	0	1	0	0	0	
DS	3	0	0	1	0	0	0	
LFS	0	0	0	0	0	0	0	
SPTL	0	0	1	0	0	0	0	
SH (ad-clip)	7	2	0	1	4	0	0	
SH (natural)	0	0	0	0	0	0	0	
Water Temp. (avg. °F)	50.7	52.5	54.9	53.6	55.2	53.0	51.9	

Flows (avg. cfs)					16119	12767	14932	
Turbidity (avg. NTU)					21.8	11.2	10.9	
FR/SR Avg. CPUE					18.8	9.68	17.3	
WR/LFR Avg. CPUE					0.10	0	0.33	

Key: FR = Fall run; LFR = Late-fall run; SR = Spring run; WR = Winter run; SH = Steelhead; DS = Delta smelt; LFS = Longfin smelt; SPTL = Splittail.

Moulton: The CPUE for spring-run Chinook and fall-run Chinook (combined) ranged from 0.26 to 53.33 over the reporting period. The CPUE for winter-run Chinook and late fall-run Chinook (combined, though no late fall-run juveniles were observed during this sampling period) ranged from zero to 1.02 over the reporting period.

Tisdale: The CPUE for spring-run Chinook and fall-run Chinook (combined) ranged from 2.49 to 21.69 over the reporting period. No winter-run Chinook or late fall-run Chinook were observed during the reporting period.

Knights Landing: The CPUE for spring-run Chinook and fall-run Chinook (combined) ranged from 2.97 to 43.43 over the reporting period. The CPUE for winter-run Chinook and late fall-run Chinook (combined, though no late fall-run juveniles were observed during this sampling period) ranged from zero to 0.57 over the reporting period.

Salvage and loss data (from 3/7- 3/13/11): For additional info:

<http://www.water.ca.gov/swp/operationscontrol/calfed/calfedmonitoring.cfm>

Chinook salmon

Cumulative loss of non-clipped Chinook salmon reported at the federal and state fish collection facilities from 3/7/2011 – 3/13/2011:

	CVP	SWP
Winter-run	90	570
Spring-run	9	0
Fall-run	1	17
Late fall-run	0	0

Cumulative YTD totals: Combined CVP/SWP loss of non-clipped winter-run Chinook since 10/1/2010 is 3,189, which represents nearly 1/2 of the incidental take limit (6,640).

Steelhead

CVP: There were 32 clipped and 6 non-clipped steelhead salvaged from 3/7/2011 – 3/13/2011.

SWP: There were 32 clipped and 27 non-clipped steelhead salvaged from 3/7/2011 – 3/13/2011.

Cumulative YTD total: Combined CVP/SWP salvage since 10/1/2010 is 251 non-clipped (wild) steelhead, or 8.37 percent of the incidental take limit (3,000).

Delta smelt

No delta smelt were salvaged at the federal or state fish collection facilities from 3/7/2011 – 3/13/2011. However, the CVP did report catching two delta smelt during a special study on 3/13/2011.

Cumulative YTD total: Total CVP salvage of delta smelt since 10/1/2010 is 12. No delta smelt have been salvaged at the SWP since 10/1/2010.

Longfin smelt

No longfin smelt were salvaged at the federal or state fish collection facilities from 3/7/2011 – 3/13/2011.

Cumulative YTD total: Total CVP salvage of longfin smelt since 10/1/2010 is 4. No longfin smelt have been salvaged at the SWP since 10/1/2010.

Green sturgeon

No green sturgeon were salvaged at the federal or state fish collection facilities from 3/7/2011 – 3/13/2011.

Cumulative YTD total: Total SWP salvage of green sturgeon since 10/1/2010 is 2. No green sturgeon have been salvaged at the CVP since 10/1/2010.

Older juvenile Chinook loss and loss density 3/7–3/13/11

**SWP & CVP OLDER JUVENILE* CHINOOK LOSS & LOSS DENSITY
03/07/2011 through 03/13/2011**

Date	OLDER JUVENILE LOSS** (# fish)			Combined Older Juvenile Loss Density (fish/TAF)
	SWP	CVP	Combined	
03/07/2011	184.14	15.60	199.74	12.41
03/08/2011	35.06	7.80	42.86	2.73
03/09/2011	27.09	9.10	36.19	2.33
03/10/2011	54.12	7.80	61.92	4.15
03/11/2011	108.32	15.60	123.92	8.30
03/12/2011	108.10	12.14	120.24	8.03
03/13/2011	53.90	21.14	75.04	4.55

DWR-DES 3/14/2011

Preliminary, subject to revision

*Older juveniles defined as all Chinook above the minimum winter run length (Delta Model)

**Loss data obtained from DFG, Stockton

The preliminary estimate of combined older juvenile Chinook salmon loss for yesterday, 3/14/11, was 11.56 fish/TAF, based on a combined loss of 174.92 (155.88 fish at the SWP and

19.04 fish at the CVP) and combined exports of 15.127 TAF (7.751 TAF at the SWP and 7.376 TAF at the CVP). This is above the second stage trigger of the juvenile production estimate-based 1st OMR trigger (6.64 fish/TAF). All of the older juveniles were identified as winter-run, according to their length at date.

Hatchery coded wire tags (DWR report): There has been no update to these numbers since last week, since no new tags have been read. 16 tags (retrieved from March 1-13) remain to be read. The group briefly discussed whether the delay in tag reading was due to delayed delivery of tags to the tag-reading lab in Stockton, or to a backlog of tags to be read, without any clear resolution. In all likelihood, both factors may contribute to the delay. No one on the call was sure about the source of funding for reading tags collected at the fish collection facilities.

Smelt working group (SWG) update: The SWG group met on 3/14/11. Water temperature (the three-station average) has exceeded 12 degrees, which triggers Action 3 of the FWS smelt Biological Opinion. Kodiak Trawl #3 was in the field last week and collected 52 delta smelt, including 2 spent females, 7 ripe females, and 3 ripe males. Most the delta smelt observed were collected in the Sacramento River deep water ship channel and Montezuma Slough. The first 20mm survey is in the field this week.

Based on the observed distribution of delta smelt (no adults in the central/southern delta), current operations were deemed adequately protective and SWG made no recommendation.

Based on the observed distribution of longfin smelt (distribution primarily in the western delta), current operations were deemed adequately protective and SWG made no recommendation.

Weather forecast: DWR reported that wet weather was expected tonight, a small storm system was expected on Thursday, and a much bigger system coming in on Friday. The weather pattern was not expected to extend far into the San Joaquin basin.

Operations as of 3/14/11

SWP		CVP	
Flows/Exports (cfs)			
Clifton Court Forebay	4,250	Jones Pumping Plant	3,700
Outflow		American- Nimbus	8,000
Total Delta Inflow	48,648	Sacramento-Keswick	3,900
		Stanislaus - Goodwin	
Feather - Oroville	1,750	Merced	
Sacramento River at Freeport	34,098	Mokelumne	
San Joaquin at Vernalis	9,417	Tuolumne	
OMR (daily)			
OMR 5 day			
OMR 14 day			
Reservoir Storage (TAF)			
San Luis	1,064	San Luis	968
Shasta	4,095		
Folsom	664		
New Melones			

Oroville	2,913		
Delta Operations			
DCC	closed		
Outflow Index (cfs)	39,700	X2 (km)	61.2
E/I (%)	16.1		
Water Temperature (°F)	54.9		

San Luis Reservoir was deemed “full” on Sunday, March 13.

Update on exports: Both the CVP and SWP were expecting to reduce exports to 3,500 cfs today, Tuesday, 3/15, to meet the OMR limit of no more negative than -2,500 cfs. DWR has issued a notice that Article 21 water is available, and believes that the CVP may be offering Article 215 water.

Update on reservoir releases: Because of high inflows which will encroach the flood space, many reservoirs in the Sacramento basin will be releasing at very high rates over the next week to two weeks. Oroville Dam (on the Feather River), Keswick Dam (on the Sacramento River), and Nimbus Dam (on the American River) will all be spilling at least 15,000 cfs by tonight or tomorrow.

OMR flows: After operating to an OMR limit of no more negative than -2,500 cfs from 3/3/11 through 3/12/11¹, the OMR limit was relaxed (because of the three-day series of loss densities between 3.32 and 6.64 fish/TAF from 3/8-3/10) to no more negative than -3,500 cfs for a single day -- Sunday, March 13. Beginning Monday, March 14, through at least Friday, March 18 (because of the triggering of the second-stage trigger level by the loss density of 8.30 fish/TAF reported on 3/11), the projects are operating to an OMR limit of no more negative than -2,500 cfs.

Funding & Monitoring: The group discussed some of the funding concerns for monitoring throughout the Central Valley, and some specific concerns about the continuation of the rotary screw traps at Moulton and Tisdale (which, to date, have been funded in connection with the proposed North of Delta Off-Site Storage project), and at Mill and Deer creeks. This issue was discussed last week at the Implementation Management Team meeting and may also be discussed later this morning by the 5-agency group.

It was noted that without a robust monitoring and sampling protocol, rotary screw trap data act essentially as detectors of presence/absence, rather than as measures of juvenile abundance. Given the challenge of performing required monitoring with a limited budget, any monitoring strategy should consider the relative value of fewer, more intensively sampled monitoring stations as compared to more, but less intensively sampled monitoring stations.

It was reported that Doug Threlhoff (FWS, CAMP Program Manager) is trying to standardize Central Valley rotary screw trap data reporting in order to summarize life-history data suitable for feeding into life-cycle modeling. The IEP Delta Rearing Salmonid team is also discussing this issue.

¹ See previous DOSS notes or NMFS determinations for OMR action responses prior to 3/3/2011.

DOSS advice for 3/15/11: DOSS advises NMFS and WOMT to continue to operate to an OMR flow limit of no more negative than -2,500 cfs, at least through Friday, 3/18/2011 (the 5th day of operations under the -2,500 OMR limit which began Monday, 3/14/2011). After Friday, the OMR limit may be relaxed when the combined older juvenile Chinook salmon loss density at the fish facilities declines to less than 6.64 fish/TAF for 3 consecutive days.

On Friday, 3/18/2011, DWR, Reclamation, and NMFS will review (via e-mail) the recent loss densities and assess the need for further review of loss densities over the weekend. If, for example, the loss densities for Wednesday and Thursday (reported on Friday) are below 6.64 fish/TAF, DWR, Reclamation, and NMFS will designate staff to, on Saturday, review Friday's loss density data and evaluate a possible relaxation of the OMR limit. If the loss density for Thursday (reported on Friday) is above 6.64 fish/TAF, no weekend review will be necessary, since the third day of the next three-day series of loss densities (Friday, Saturday, and Sunday) will not be available until Monday, when Sunday's loss density will be reported.

DOSS will not be convened before next Tuesday's regularly-scheduled meeting unless the decision to relax (or not relax) the OMR limit hinges on one or more loss densities for which the preliminary estimate (prior to being confirmed by DFG) is within 0.1 fish/TAF of the first or second stage trigger in the NMFS BiOp. In the event that a DOSS call is necessary to review "borderline" loss densities that could affect operational decisions, NMFS will schedule a DOSS call within 24 hours of receiving the latest loss density update, and will also alert WOMT to the possibility of an emergency call to consider the DOSS advice.

Check-in on discussions for real-time data reporting:

DWR (Chu) reported that the internal meeting with the fish facilities personnel has not yet been scheduled.

Announcements:

The Delta Science Program is hosting a workshop on April 13th about life-cycle modeling of Central Valley salmonids. Some of the models to be discussed include: SHIRAZ, OBAN, SALMOD, IOS, DPM.

Next Meeting: Conference call, 3/22/11, 9:00 a.m.